



Element Materials Technology Lafayette  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344  
TEL: (337) 235-0483 FAX: (337) 233-6540  
Website: [www.element.com](http://www.element.com)

August 28, 2014

Duane Piranio  
Arabie Environmental  
P O Box 928  
Lake Charles, LA 70602  
TEL: (337) 263-1596  
FAX (337) 436-3641

RE: Moore/11301

Order No.: 14080853

Dear Duane Piranio:

Element Materials Technology Lafayette, LLC received 1 sample(s) on 8/15/2014 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



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## Case Narrative

WO#: 14080853

Date: 8/28/2014

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**CLIENT:** Arabie Environmental

**Project:** Moore/11301

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.



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## Analytical Report

(consolidated)

WO#: **14080853**

Date Reported: **8/28/2014**

**CLIENT:** Arabie Environmental **Collection Date:** 8/13/2014 2:10:00 PM  
**Project:** Moore/11301  
**Lab ID:** 14080853-001 **Matrix:** SOIL  
**Client Sample ID** B5 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SPLP BTEX BY 1312/8260</b>						
<b>VOLATILES, SPLP LEACHATE</b>						
				<b>SW8260B</b>		Analyst: <b>CRM</b>
Benzene	< 0.00500	0.00500		mg/L	1	8/27/2014 1:10:00 PM
Surr: 4-Bromofluorobenzene	93.5	80 - 120		%REC	1	8/27/2014 1:10:00 PM
Surr: Dibromofluoromethane	95.9	70 - 130		%REC	1	8/27/2014 1:10:00 PM
Surr: Toluene-d8	88.2	80 - 120		%REC	1	8/27/2014 1:10:00 PM

### Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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## QC SUMMARY REPORT

WO#: 14080853

28-Aug-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: R36958

Sample ID	MBLK SPLP	SampType:	MBLK	TestCode:	8260_SPLP	Units:	mg/L	Prep Date:		RunNo:	36958	
Client ID:	PBW	Batch ID:	R36958	TestNo:	SW8260B			Analysis Date:	8/27/2014	SeqNo:	872986	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		< 0.00500	0.00500									
Surr: 4-Bromofluorobenzene		0.0276		0.03000		92.1	80	120				
Surr: Dibromofluoromethane		0.0282		0.03000		94.0	70	130				
Surr: Toluene-d8		0.0262		0.03000		87.3	80	120				

Sample ID	LCSD	SampType: LCSD	TestCode: 8260_SPLP	Units: mg/L	Prep Date:	RunNo: 36958					
Client ID:	LCSS02	Batch ID: R36958	TestNo: SW8260B	Analysis Date: 8/27/2014	SeqNo: 872990						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0484	0.00500	0.05000	0	96.7	67.2	121	0.04748	1.82	20	
Surr: 4-Bromofluorobenzene	0.0300		0.03000		100	80	120		0	20	
Surr: Dibromofluoromethane	0.0273		0.03000		90.9	70	130		0	20	
Surr: Toluene-d8	0.0256		0.03000		85.5	80	120		0	20	

Sample ID	LCS	SampType:	LCS	TestCode:	8260_SPLP	Units:	mg/L	Prep Date:		RunNo:	36958	
Client ID:	LCSW	Batch ID:	R36958	TestNo:	SW8260B			Analysis Date:	8/27/2014	SeqNo:	872991	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		0.0475	0.00500	0.05000	0	95.0	67.2	121				
Surr: 4-Bromofluorobenzene		0.0300		0.03000		100	80	120				
Surr: Dibromofluoromethane		0.0276		0.03000		92.0	70	130				
Surr: Toluene-d8		0.0254		0.03000		84.8	80	120				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
ND Not Detected at the Reporting Limit  
PL Permit Limit  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.  
M Matrix Interference  
P Second column confirmation exceeds  
RL Reporting Detection Limit



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## Sample Log-In Check List

Client Name: **ARABIE\_ENV**

Work Order Number: **14080853**

RcptNo: **1**

Logged by: **Emily Tassin** **8/15/2014 11:15:00 AM**

Completed By: **Emily Tassin** **8/15/2014 11:32:06 AM**

Reviewed By: **Caitlin Duplantis** **8/19/2014 1:24:01 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Element

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
4. Shipping container/cooler in good condition? Yes ☒ No ☐  
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒  
No. Seal Date: Signed By:  
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
7. Sample(s) in proper container(s)? Yes ☒ No ☐  
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒  
12. Were any sample containers received broken? Yes ☐ No ☒  
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
15. Is it clear what analyses were requested? Yes ☒ No ☐  
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Not Present			



Laboratory Number: 14180862

Company Name:	Client Information:	Billing Information:	PO Number:	Project Name/Number:	Page 1 of 1
Contact Name:	Artistic Environments	Same	Quote Number:	MOORE / 11301	<b>Matrix Code</b> DW = Drinking Water AQ = Aqueous Non-Potable Water SL = Sludge SOL = Solid/Soil O = Oil PW = Produced Water CF = Completion Fluid AIR = Air DF = Drilling Fluid OT = Other
Address:	Duane P. L. Co.		Required QC Level:	Sampler's Signature	
City, State Zip:	P.O. Box 928				
Phone Number:	Lake Charles, Louisiana 70602	Ext:	Bill Monthly		Shipping Method:
Fax Number:		<input type="checkbox"/> Yes	<input type="checkbox"/> No		LPS / FedEx / Airborne DHL / Sherry / Hand / Mail
E-mail Address:					

[illegible]

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		8/15/14	John Hebert	8/15/14	8x6
2	John Hebert	8/15/14		8/15/14	Received at lab on ice?
3		11/15			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Temp: 2.7°C

All samples submitted to Sherry Laboratories for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Sherry Laboratories reserves the right to return unused sample portions.

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Fax: 972-840-8993